

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>GB2 2003059 PCT</b>	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. <b>PCT/FR2004/001862</b>	International filing date (day/month/year) <b>15.07.2004</b>	Priority date (day/month/year) <b>16.07.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>B32B17/10, B60R1/08</b>		
Applicant <b>SAINT-GOBAIN GLASS FRANCE</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>8</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-17 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 1-23 \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/3-3/3 \_\_\_\_\_ as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>2, 10-16, 19, 21, 22</u>	YES
	Claims	<u>1, 3-9, 17, 18, 20, 23</u>	NO
Inventive step (IS)	Claims	<u></u>	YES
	Claims	<u>1-23</u>	NO
Industrial applicability (IA)	Claims	<u>1-23</u>	YES
	Claims	<u></u>	NO
2. Citations and explanations (Rule 70.7)			
1. In the present report, reference is made to the following documents:			
D1: FR 2 829 723 A (SAINT GOBAIN) 21 March 2003 (2003-03-21);			
D3: US 2003/064198 A1 (VEERASAMY VIJAYEN S ET AL) 3 April 2003 (2003-04-03);			
D2: EP 0 353 141 A (SAINT GOBAIN VITRAGE) 31 January 1990 (1990-01-31);			
D4: US 4 654 067 A (RAMUS KEVIN J ET AL) 31 March 1987 (1987-03-31);			
D5: FR 2 227 123 A (JENAER GLASWERK SCHOTT & GEN) 22 November 1974 (1974-11-22);			
D6: BE 702 812 A (LIBBY OWENS FORD GLASS CO.) 19 February 1968 (1968-02-19);			
D7: PATENT ABSTRACTS OF JAPAN vol. 015, no. 306 (C-0856), 6 August 1991 (1991-08-06) & JP 03 115142 A (NISSAN MOTOR CO LTD; others: 01), 16 May 1991 (1991-05-16);			
D8: US 5 239 406 A (LYNAM NIAL R) 24 August 1993 (1993-08-24).			
2. The international application relates to a glass			

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panel characterised in that it has an active system on the inside surface (2) of the first rigid substrate (claim 1), which substrate preferably consists of glass (claim 4).

- 2.1 Dependent claims 2 and 3 disclose examples of said active system.

It follows that these claims envisage the use, as an active system, of an electrically controllable system such as the ones indicated in claim 2, or a stack of thin films having either thermal or acoustic functions or absorbent, thermochromic or thermotropic optical functions (claim 3).

- 2.2 Claim 4 discloses that the substrates are made of glass.

Claims 5 to 8 define the total thickness and the relative sizes of the substrates.

Claim 9 relates to a peripheral opacifying coating, claim 10 discloses a margin line around the edge of surface (2) and claims 11 to 16 relate to peripheral seals.

Claims 17 to 20 list a plurality of possible uses for the glass panel, including the use thereof as a motor vehicle windscreen (claim 18). Claims 21 and 22 characterise the substrate.

It should be noted that none of the dependent

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claims defines the features of the active system in claims 1 to 3.

A person skilled in the art is necessarily aware of the operation of such a system in a glass panel suitable for a variety of possible uses.

It follows that the features of the active system are less important. What is important, as confirmed by the characterising portion in claim 1, is that the active system is on the inside surface of the first substrate, which is the outwardly facing substrate.

**PCT Article 33(2) and 33(3)**

- 3.1 The international search report contains citations which demonstrate that, with the exception of an electrochromic system, it would be obvious to form an active system on the inside surface of the first substrate.

The set of claims in document D1 teaches the features in most of the present dependent claims.

Claim 21 in document D1 discloses that the outside surface of the second substrate is the preferred location for an electrochromic system.

With regard to active systems in general, claim 9 in D1 notes that such a system can be located on

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the outside or the inside surface of substrate S2.

D1 does not mention surface 2 of first substrate S1.

Nevertheless, by referring to prior art teachings in this field, a person skilled in the art would discover that such an alternative is possible.

- 3.2 First of all, figure 2 in document D2 demonstrates how surface 2 of a first substrate can be cleaned so as to prepare same for subsequently receiving an anti-reflective coating.

Document D3 then teaches that an electrically conductive film can have various functions, irrespective of whether it is on surface 2 or 3 (D3, column 7, lines 7 to 12).

Document D4 discloses a motor vehicle windscreen that includes two curved glass sheets of different sizes. The larger sheet is located on the outside of the glass panel (column 2, lines 22-24).

In column 2, D4 discusses steps of forming an electrically conductive film and its electrical connections (on the same surface: see lines 19 to 31) but makes no differentiation between the two glass sheets.

Moreover, in lines 1 and 2 in column 3, it is explicitly disclosed that it is the longer of the

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glass sheets that receives the electrically conductive film.

It follows that it is surface 2 of said sheet that is coated.

An electrically conductive film for de-icing a windscreen is an active system including a stack of at least one film.

As a result, document D4 anticipates all of the features in claim 1.

- 3.3 In view of this prior art, all that remains to be said is that the incorporation of phototropic or photochromic systems in a glass panel has already been suggested.

With regard to phototropic systems, reference can be made to document D5, figures 1 and 2 in combination with example 1 and the claims, and to document D6, figure 5, table A on page 17 and the text on page 18, lines 13 to 26.

Figure 6 in document D7 shows a photochromic film located on surface 2 of a glass panel.

- 3.4 Other examples of the active system are presented on pages 2 to 4 of the description in the application, including the disclosure of document D8, which relates to a rear-view mirror including an electrochromic film.

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4. The feature that is essential to the invention is the feature whereby the active system is located on surface 2 of the first substrate.

Such a selection is obvious.

Claims 2 to 23 do not contain any features which, in combination with the features in claim 1, fulfil the PCT requirement of inventive step (PCT Article 33(3)).